

To: Christner, Jan[Jan.Christner@WestonSolutions.com]
Cc: Way, Steven[way.steven@epa.gov]
From: Brobst, Bob
Sent: Thur 8/13/2015 7:15:32 PM
Subject: RE: Gold King Water Treatment

Jan

Ideally I would like the WQ from the adit pre and post event – to see if differences have arisen. The data I submitted to Tom Kady (ERT) was that of Cement Creek just N of Silverton ~6 hours post event

I'm discussing with Tom that the design flows are ~500 gpm with surges to 800+. Once we find some recommendations for treatment we'll better size the WTP to ~1000 gpm scalable - down to ~150-200gpm.

My concern is that the Fe is quite high and may impact removal of other metals. This may require Fe removal and then polishing for the other metals.

Any help would be appreciated.

Bob

Robert B. Brobst, P.E.

Senior Environmental Engineer

U.S. E.P.A. Region 8

1595 Wynkoop Street

Denver Colorado

303-887-7553 (cell)

303-312-6129 (office)

From: Christner, Jan [mailto:Jan.Christner@WestonSolutions.com]
Sent: Thursday, August 13, 2015 12:50 PM
To: Way, Steven; Brobst, Bob
Subject: RE: Gold King Water Treatment

Bob,

What data is most helpful for you? We have data from the Gold King Mine and several of the nearby mines. We also have data for Cement Creek that receives the mine waters. If treatment is done from water collected from Cement Creek at Gladstone I have that data. The most easily accessible and representative data is from 2009-present.

Jan

From: Way, Steven [mailto:way.steven@epa.gov]
Sent: Thursday, August 13, 2015 12:44 PM
To: Brobst, Bob
Cc: Christner, Jan
Subject: RE: Gold King Water Treatment

Please make sure that there is a good record as to our process, tech conclusions and those who participated.

Also, coordinate with Jan. She has access to all the data

Steven Way

Federal On-Scene Coordinator

Emergency Response Unit

US EPA - Region 8

1595 Wynkoop Street

Denver, CO 80202

Office: 303-312-6723

From: Brobst, Bob

Sent: Thursday, August 13, 2015 12:40 PM

To: Way, Steven; Griswold, Hays; Peronard, Paul

Cc: Kady, Thomas; Ackerman, Joyce

Subject: Gold King Water Treatment

Steve, Hays, Paul

I have started to look and have contacted Tom Kady ERT Edison NJ for assistance. Tom is to get back to me with some recommendations and or possibilities as soon as possible. As soon as we have flushed out some ideas and sources I will let you know. Hopefully sooner rather than later. In the meantime for your reading pleasure you can download the document below.

Below is a 2014 reference guide for treatment of mine influenced waters.

Control plus click to follow the link YES the link is that large (one link multiline)

<http://nepis.epa.gov/Exc/ZyNET.exe/P100I4PB.TXT?ZyActionD=ZyDocument&Client=EPA&Index=2011+Th&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=p%7Cf&>

I will be out this weekend but can be reached by cell and will have my computer with me. The only time the phone will be out of service is during flight times (Fri 1100-1300 MDT and Sun 1400-1630) and during my nephew's wedding (Sat ?).

Bob

Robert B. Brobst, P.E.

Senior Environmental Engineer

U.S. E.P.A. Region 8

1595 Wynkoop Street

Denver Colorado

303-312-6129 (office)

303-887-7553 (Cell)

CONFIDENTIALITY: This email and attachments may contain information which is confidential and proprietary. Disclosure or use of any such confidential or proprietary information without the written permission of Weston Solutions, Inc. is strictly prohibited. If you received this email in error, please notify the sender by return e-mail and delete this email from your system. Thank you.